

Exhibit “C”
Scope of Services
Emergency Watershed Protection Measures in the area of Devore

A.1 Modification for Task 2 (Two Additional Alternative Measures)

This work shall include developing two (2) additional conceptual sediment/debris control design alternative measures for the watershed above Greenwood Ave. These two additional alternative measures will be used in conjunction with the three alternatives that have been developed under the original contract. The design analyses of the alternative measures will include design calculations, drawings and cost estimates. Drawings will be prepared using AutoCAD and include general information, site plans and design details necessary for alternative comparison. These two alternative measures along with the three main alternative measures will be reviewed by the County and be presented in the public meeting.

Data Collection

The contractor shall collect field data in the Devore area including possible basin and channel locations. The contractor shall also collect any available information from the County including right of way and property parcels.

Alternative Development

Alternative Measures. Two additional alternative measures shall be developed on the fan along the downstream reach of the watershed. The two additional measures shall work in conjunction with diversion channel alternative measures. The first additional measure shall consist of a single debris basin placed on the fan downstream of a diversion channel for controlling sediment/debris. The second additional measure shall be a series of small debris basins placed within the western drainage course downstream of a diversion channel for controlling sediment/debris.

Design. The contractor shall submit conceptual design drawings on 11x17 sheets. The drawings shall be produced in AutoCAD.

Cost Estimate. The contractor shall prepare construction cost estimates for each of the conceptual design alternative measures. The cost estimate shall be in Excel spreadsheet form.

Meetings. The contractor shall attend one design review meeting during the alternative development. The contractor shall include the two additional alternative measures in the presentation materials and provide technical assistance and support during one public meeting.

A.2 Modification for New Task 3 (Bank and Invert Stabilization PS&E)

This work shall include the preparation of design analysis, drawings, technical specifications, and construction cost estimates. The design analysis will include design calculations, and manufacturer's information of construction elements. The drawings will be prepared using AutoCAD and include general information, site plans and design details necessary for bidding and construction of emergency stream bank and invert stabilization of the Greenwood Ave Watershed drainage course at the Apex.

Kick-off Meeting

The contractor shall meet with the County and agencies for an overview of the project. This meeting will allow for discussion of design considerations and for addressing design questions.

Data Collection

The contractor shall collect field data in the Apex area including measurements of improvement limits to the invert and stream banks. The contractor shall also collect any available information from the County including right of way, property parcels, utilities, and surveyed cross sections.

Construction Documents

Design. The contractor shall submit draft construction drawings for review on 11x17 sheets, and final construction drawings on 24x36 Mylar sheets. The drawings shall be produced in AutoCAD.

Specifications. The contractor shall prepare technical specifications for bidding and construction. The specifications shall be developed using San Bernardino County's standard boiler plate specifications.

Cost Estimate. The contractor shall provide a construction cost estimate for the design. The cost estimate shall be in Excel spreadsheet form.

Construction Support

The contractor shall provide design support services during bidding and construction of the proposed improvements according to approved final plans and specifications. The contractor shall attend up to two field visits during construction.